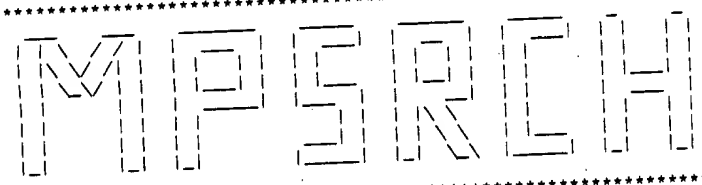
Fri Aug 22 08:31:56 1997

US-08-469-637A-1.rng




Release 2.1D John F. Collins, Biocomputing Research Unit.


MPsrch_nn n.a. - n.a. database search, using Smith-Waterman algorithm

on: Thu Aug 21 10:01:25 1997; MasPar time 180.55 Seconds
832.142 Million cell updates/sec

Tabular output not generated.

Title: >US-08-469-637A-1
Description: (1-1527) from US08469637A.seq
Perfect Score: 1527
N.A. Sequence: 1 CGCCCAGCCGCCGCCTCCAA.....TTCAACTGGAAAAAAAAAAA 1527
Comp: GCGGGTCGGCGGCGGAGGTT.....AAGTTGACCTTTTTTTTTTT

Scoring table: TABLE default
Gap 6

Nmatch STD : Dbase 0; Query 0

Searched: 134151.seqs, 49196315 bases x 2

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: n-geneseq27
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27

Statistics: Mean 9.385; Variance 5.205; scale 1.803

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| | Result No. | Score | % Query Match | Length | DB | ID | Description | Pred. No. |
|---|---|---|---|---|---|---|---|---|
| | 1 | 1204 | 78.8 | 1206 | 27 | T36685 | Osteoclastogenesis in | 0.00e+00 |
| | 2 | 1200 | 78.6 | 1206 | 27 | T33165 | Mutated OCIF, OCIF-C2 | 0.00e+00 |
| | 3 | 1200 | 78.6 | 1206 | 27 | T33164 | Mutated OCIF, OCIF-C2 | 0.00e+00 |
| | 4 | 1200 | 78.6 | 1206 | 27 | T33162 | Mutated OCIF, OCIF-C1 | 0.00e+00 |
| | 5 | 1200 | 78.6 | 1206 | 27 | T33161 | Mutated OCIF, OCIF-C2 | 0.00e+00 |
| | 6 | 1198 | 78.5 | 1206 | 27 | T33163 | Mutated OCIF, OCIF-CL | 0.00e+00 |
| | 7 | 1196 | 78.3 | 1200 | 27 | T33172 | Mutated OCIF, OCIF-CB | 0.00e+00 |
| | 8 | 1173 | 76.8 | 1182 | 27 | T33178 | Mutated OCIF, OCIF-CC | 0.00e+00 |
| | 9 | 1052 | 68.9 | 1056 | 27 | T33173 | Mutated OCIF, OCIF-DC | 0.00e+00 |
| | 10 | 1017 | 66.6 | 1083 | 27 | T33166 | Mutated OCIF, OCIF-CS | 0.00e+00 |
| | 11 | 951 | 62.3 | 966 | 27 | T33179 | Mutated OCIF, OCIF-DC | 0.00e+00 |
| | 12 | 890 | 58.3 | 1080 | 27 | T33167 | Mutated OCIF, OCIF-DD | 0.00e+00 |
| | 13 | 816 | 53.4 | 984 | 27 | T33171 | Mutated OCIF, OCIF-CD | 0.00e+00 |
| | 14 | 814 | 53.3 | 819 | 27 | T33174 | Mutated OCIF, OCIF-DC | 0.00e+00 |
| | 15 | 765 | 50.1 | 1080 | 27 | T33168 | Fragment of human OCI | 0.00e+00 |
| | 16 | 663 | 43.4 | 10190 | 27 | T33183 | Fragment of human OCI | 0.00e+00 |
| | 17 | 649 | 42.5 | 1080 | 27 | T33169 | Mutated OCIF, OCIF-DC | 0.00e+00 |
| | 18 | 598 | 39.2 | 981 | 27 | T33170 | Mutated OCIF, OCIF-DD | 0.00e+00 |
| | 19 | 589 | 38.6 | 594 | 27 | T33175 | Mutated OCIF, OCIF-CD | 0.00e+00 |
| | 20 | 558 | 36.5 | 564 | 27 | T33180 | Mutated OCIF, OCIF-CB | 0.00e+00 |
| | 21 | 428 | 28.0 | 432 | 27 | T33176 | Mutated OCIF, OCIF-CC | 1.12e-297 |
| | 22 | 402 | 26.3 | 438 | 27 | T36689 | Osteoclastogenesis in | 9.46e-278 |
| | 23 | 400 | 26.2 | 465 | 27 | T36688 | Osteoclastogenesis in | 3.22e-276 |
| | 24 | 318 | 20.8 | 321 | 27 | T33177 | Mutated OCIF, OCIF-CC | 1.35e-213 |
| | 25 | 244 | 16.0 | 255 | 27 | T33181 | Mutated OCIF, OCIF-CP | 1.77e-157 |
| | 26 | 99 | 6.5 | 1047 | 2 | Q10572 | Human Natriuretic Pep | 3.74e-50 |
| | 27 | 80 | 5.2 | 1047 | 2 | Q10572 | Human Natriuretic Pep | 9.70e-37 |
| c | 28 | 75 | 4.9 | 1317 | 27 | T33182 | Fragment of human OCI | 2.88e-33 |
| | 29 | 45 | 2.9 | 91 | 9 | Q51746 | Oligonucleotide probe | 2.87e-13 |
| | 30 | 42 | 2.8 | 204 | 1 | N81164 | Base substituted E.co | 2.17e-11 |
| c | 31 | 39 | 2.6 | 91 | 9 | Q51746 | Oligonucleotide probe | 1.52e-09 |
| | 32 | 36 | 2.4 | 114 | 12 | Q70465 | Generic DNA sequence | 9.72e-08 |
| | 33 | 36 | 2.4 | 114 | 12 | Q70470 | Generic DNA sequence | 9.72e-08 |
| | 34 | 36 | 2.4 | 114 | 12 | Q70469 | Generic DNA sequence | 9.72e-08 |
| c | 35 | 37 | 2.4 | 204 | 1 | N81164 | Base substituted E.co | 2.46e-08 |
| | 36 | 35 | 2.3 | 114 | 12 | Q70467 | Generic DNA sequence | 3.80e-07 |
| | 37 | 33 | 2.2 | 114 | 12 | Q70468 | Generic DNA sequence | 5.59e-06 |
| | 38 | 33 | 2.2 | 114 | 12 | Q70466 | Generic DNA sequence | 5.59e-06 |
| c | 39 | 34 | 2.2 | 114 | 12 | Q70467 | Generic DNA sequence | 1.47e-06 |
| c | 40 | 33 | 2.2 | 114 | 12 | Q70468 | Generic DNA sequence | 5.59e-06 |
| | 41 | 32 | 2.1 | 114 | 12 | Q70473 | Generic DNA sequence | 2.10e-05 |
| c | 42 | 32 | 2.1 | 114 | 12 | Q70465 | Generic DNA sequence | 2.10e-05 |
| c | 43 | 32 | 2.1 | 114 | 12 | Q70469 | Generic DNA sequence | 2.10e-05 |
| | 44 | 31 | 2.0 | 114 | 12 | Q70472 | Generic DNA sequence | 7.78e-05 |
| c | 45 | 30 | 2.0 | 114 | 12 | Q70466 | Generic DNA sequence | 2.84e-04 |

ALIGNMENTS

RESULT 1
ID T36685 standard; DNA; 1206 BP.
AC T36685;
DT 22-APR-1997 (first entry)
DE Osteoclastogenesis inhibitory factor coding sequence.
KW Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW osteoporosis; ss.
OS Homo sapiens.
FH Key Location/Qualifiers
FT sig_peptide 1..63
FT /*tag= a
FT mat_peptide 64..1203
FT /*tag= b
FT /label= Claim 6
PN WO9626217-A1.
PD 29-AUG-1996.
PF 20-FEB-1996; J00374.
PR 20-FEB-1995; JP-054977.
PR 21-JUL-1995; JP-207508.
PA (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;
PI Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;
DR WPI; 96-402320/40.
DR P-PSDB; R99924-25.
PT DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT for bone resorption control, esp. treatment of osteoporosis
PS Claim 8; Page 66-67; 183pp; Japanese.
CC This sequence encodes the full length osteoclastogenesis inhibitory
CC factor (OCIF) of the invention. The OCIF has a molecular weight by
CC SDS-PAGE of 60 kD under reducing conditions and 120 kD under non-
CC reducing conditions. The protein is adsorbed onto cation-exchangers
CC or heparin and its activity is lowered after 10 mins at 70 deg.C or
CC 30 mins at 56 deg.C, and is lost after 10 mins at 90 deg.C. OCIF is
CC useful in the control of bone resorption and therefore in the
CC treatment and prevention of disorders of bone resorption, e.g.
CC .osteoporosis.
SQ Sequence 1206 BP; 388 A; 284 C; 269 G; 265 T;

Query Match 78.8%; Score 1204; DB 27; Length 1206;
Best Local Similarity 99.9%; Pred. No. 0.00e+00;

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Db     61 caggaaacgtttcctccaaagtaccttcattatgacgaagaaacctctcatcagctgttg 120
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Qy    166 TGTGACAAATGTCCTCCTGGTACCTACCTAAAACAACACTGTACAGCAAAGTGGAAGACC 225

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Db    241 ctatactgcagccccgtgtgcaaggagctgcagtacgtcaagcaggagtgcaatcgcacc 300
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Db    301 cacaaccgcgtgtgcgaatgcaaggaagggcgctaccttgagatagagttctgcttgaaa 360
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Db    361 cataggagctgccctcctggatttggagtggtgcaagctggaaccccagagcgaaatata 420
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Qy    406 CATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGCAAGCTGGAACCCCAGAGCGAAATACA 465

Db    421 gtttgcaaaagatgtccagatgggttcttctcaaatgagacgtcatctaaagcaccctgt 480
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Qy    586 CACGACAACATATGTTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACC 645

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Db    781 aacaaagaccaagatatagtcaagaagatcatccaagatattgacctctgtgaaaacagc 840
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RESULT    2
ID    T33165 standard; DNA; 1206 BP.
AC    T33165;
DT    22-APR-1997  (first entry)
DE    Mutated OCIF, OCIF-C23S, coding sequence.
KW    Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW    osteoporosis; ss.
OS    Synthetic.
FH    Key             Location/Qualifiers
FT    sig_peptide     1..63
FT    /*tag= a
FT    mat_peptide     64..1203
FT    /*tag= b
FT    /product= OCIF-C23S
PN    WO9626217-A1.
PD    29-AUG-1996.
PF    20-FEB-1996; J00374.
PR    20-FEB-1995; JP-054977.
PR    21-JUL-1995; JP-207508.
PA    (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI    Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI    Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR    WPI; 96-402320/40.
DR    P-PSDB; R99935.
PT    DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT    for bone resorption control, esp. treatment of osteoporosis
PS    Claim 39; Page 136-137; 183pp; Japanese.
CC    This sequence encodes a mutated version of the full length
CC    osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
CC    sequence encodes OCIF-C23S in which the 23rd Cys residue in the mature
CC    OCIF protein is substituted by Ser.  The OCIF of the invention has a
CC    molecular weight by SDS-PAGE of 60 kD under reducing conditions and
CC    120 kD under non-reducing conditions.  The protein is adsorbed onto
CC    cation-exchangers or heparin and its activity is lowered after 10 mins
CC    at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90
CC    deg.C.  OCIF is useful in the control of bone resorption and therefore
CC    in the treatment and prevention of disorders of bone resorption, e.g.
CC    osteoporosis.
SQ    Sequence   1206 BP;    389 A;    285 C;    268 G;    264 T;

  Query Match           78.6%;  Score 1200;  DB 27;  Length 1206;
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  Matches  1203;  Conservative    0;  Mismatches   3;  Indels   0;  Gaps   0;

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Qy    646 CTGTGTGAGGAGGCATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTT 705

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Qy    886 GTGCAGCGGCACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAA 945

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Qy   1246 TTATAA 1251


RESULT    3
ID   T33164 standard; DNA; 1206 BP.
AC   T33164;
DT   22-APR-1997  (first entry)
DE   Mutated OCIF, OCIF-C22S, coding sequence.
KW   Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW   osteoporosis; ss.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   sig_peptide     1..63
FT   /*tag= a
FT   mat_peptide     64..1203
FT   /*tag= b
FT   /product= OCIF-C22S
PN   WO9626217-A1.
PD   29-AUG-1996.
PF   20-FEB-1996; J00374.
PR   20-FEB-1995; JP-054977.
PR   21-JUL-1995; JP-207508.
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI   Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI   Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR   WPI; 96-402320/40.
DR   P-PSDB; R99934.
PT   DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT   for bone resorption control, esp. treatment of osteoporosis
PS   Claim 36; Page 135-136; 183pp; Japanese.
CC   This sequence encodes a mutated version of the full length
CC   osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
CC   sequence encodes OCIF-C22S in which the 22nd Cys residue in the mature
CC   OCIF protein is substituted by Ser.  The OCIF of the invention has a
CC   molecular weight by SDS-PAGE of 60 kD under reducing conditions and
CC   120 kD under non-reducing conditions.  The protein is adsorbed onto
CC   cation-exchangers or heparin and its activity is lowered after 10 mins
CC   at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90
CC   deg.C.  OCIF is useful in the control of bone resorption and therefore
CC   in the treatment and prevention of disorders of bone resorption, e.g.
CC   osteoporosis.
SQ   Sequence   1206 BP;    389 A;    285 C;    268 G;    264 T;

  Query Match           78.6%;  Score 1200;  DB 27;  Length 1206;
  Best Local Similarity  99.8%;  Pred. No. 0.00e+00;
  Matches  1203;  Conservative    0;  Mismatches   3;  Indels   0;  Gaps   0;

Db      1 atgaacaacttgctgtgctgcgcgctcgtgtttctggacatctccattaagtggaccacc 60
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Qy     46 ATGAACAAGTTGCTGTGCTGCGCGCTCGTGTTTCTGGACATCTCCATTAAGTGGACCACC 105

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Qy    106 CAGGAAACGTTTCCTCCAAAGTACCTTCATTATGACGAAGAAACCTCTCATCAGCTGTTG 165

Db    121 tgtgacaaatgtcctcctggtacctacctaaaacaacactgtacagcaaagtggaagacc 180
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Qy    166 TGTGACAAATGTCCTCCTGGTACCTACCTAAAACAACACTGTACAGCAAAGTGGAAGACC 225

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Db   1081 gtcactcagagtctaaagaagaccatcaggttccttcacagcttcacaatgtacaaattg 1140
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Qy   1126 GTCACTCAGAGTCTAAAGAAGACCATCAGGTTCCTTCACAGCTTCACAATGTACAAATTG 1185

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   .. 1246 TTATAA 1251


RESULT    4
ID   T33162 standard; DNA; 1206 BP.
AC   T33162;
DT   22-APR-1997  (first entry)
DE   Mutated OCIF, OCIF-C20S, coding sequence.
KW   Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW   osteoporosis; ss.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   sig_peptide     1..63
FT   /*tag= a
FT   mat_peptide     64..1203
FT   /*tag= b
FT   /product= OCIF-C20S
PN   WO9626217-A1.
PD   29-AUG-1996.
PF   20-FEB-1996; J00374.
PR   20-FEB-1995; JP-054977.
PR   21-JUL-1995; JP-207508.
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI   Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;
PI   Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;
DR   WPI; 96-402320/40.
DR   P-PSDB; R99932.
PT   DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT   for bone resorption control, esp. treatment of osteoporosis
PS   Claim 30; Page 133-134; 183pp; Japanese.
CC   This sequence encodes a mutated version of the full length
CC   osteoclastogenesis inhibitory factor (OCIF) of the invention. This
CC   sequence encodes OCIF-C20S in which the 20th Cys residue in the mature
CC   OCIF protein is substituted by Ser. The OCIF of the invention has a
CC   molecular weight by SDS-PAGE of 60 kD under reducing conditions and
CC   120 kD under non-reducing conditions. The protein is adsorbed onto
CC   cation-exchangers or heparin and its activity is lowered after 10 mins
CC   at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90
CC   deg.C. OCIF is useful in the control of bone resorption and therefore
CC   in the treatment and prevention of disorders of bone resorption, e.g.
CC   osteoporosis.
SQ   Sequence   1206 BP;    389 A;    283 C;    270 G;    264 T;

  Query Match          78.6%;  Score 1200;  DB 27;  Length 1206;
  Best Local Similarity  99.8%;  Pred. No. 0.00e+00;
  Matches  1203;  Conservative    0;  Mismatches   3;  Indels   0;  Gaps   0;

Db      1 atgaacaacttgctgtgctgcgcgctcgtgtttctggacatctccattaagtggaccacg 60
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Qy     46 ATGAACAAGTTGCTGTGCTGCGCGCTCGTGTTTCTGGACATCTCCATTAAGTGGACCACC 105

Db     61 caggaaacgtttcctccaaagtaccttcattatgacgaagaaacctctcatcagctgttg 120
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Qy    106 CAGGAAACGTTTCCTCCAAAGTACCTTCATTATGACGAAGAAACCTCTCATCAGCTGTTG 165

Db    121 tgtgacaaatgtcctcctggtacctacctaaaacaacactgtacagcaaagtggaagacc 180
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Qy    166 TGTGACAAATGTCCTCCTGGTACCTACCTAAAACAACACTGTACAGCAAAGTGGAAGACC 225

Db    181 gtgtgcgccccttgccctgaccactactacacagacagctggcacaccagtgacgagtgt 240
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Db    361 cataggagctgccctcctggatttggagtggtgcaagctggaaccccagagcgaaatata 420
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Qy    406 CATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGCAAGCTGGAACCCCAGAGCGAAATACA 465

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Qy    466 GTTTGCAAAAGATGTCCAGATGGGTTCTTCTCAAATGAGACGTCATCTAAAGCACCCTGT 525

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Qy    586 CACGACAACATATGTTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACC 645

Db    601 ctgagtgaggaggcattcttcaggtttgctgttcctacaaagtttacgcctaactggctt 660
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Qy    646 CTGTGTGAGGAGGCATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTT 705

Db    661 agtgtcttggtagacaatttgcctggcaccaaagtaaacgcagagagtgtagagaggata 720
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Qy    706 AGTGTCTTGGTAGACAATTTGCCTGGCACCAAAGTAAACGCAGAGAGTGTAGAGAGGATA 765

Db    721 aaacggcaacacagctcacaagaacagactttccagctgctgaagttatggaaacatcaa 780
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Db    781 aacaaagaccaagatatagtcaagaagatcatccaagatattgacctctgtgaaaacagc 840
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Qy    826 AACAAAGACCAAGATATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGC 885

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Qy    886 GTGCAGCGGCACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAA 945

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Qy   1246 TTATAA 1251
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RESULT    5
ID    T33161 standard; DNA; 1206 BP.
AC    T33161;
DT    22-APR-1997  (first entry)
DE    Mutated OCIF, OCIF-C19S, coding sequence.
KW    Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW    osteoporosis; ss.
OS    Synthetic.
FH    Key             Location/Qualifiers
FT    sig_peptide     1..63
      /*tag= a
      mat_peptide     64..1203
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FT    /product= OCIF-C19S
PN    WO9626217-A1.
PD    29-AUG-1996.
PF    20-FEB-1996; J00374.
PR    20-FEB-1995; JP-054977.
PR    21-JUL-1995; JP-207508.
PA    (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI    Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI    Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR    WPI; 96-402320/40.
DR    P-PSDB; R99931.
PT    DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT    for bone resorption control, esp. treatment of osteoporosis
PS    Claim 27; Page 132; 183pp; Japanese.
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CC    osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
CC    sequence encodes OCIF-C19S in which the 19th Cys residue in the mature
CC    OCIF protein is substituted by Ser.  The OCIF of the invention has a
CC    molecular weight by SDS-PAGE of 60 kD under reducing conditions and
CC    120 kD under non-reducing conditions.  The protein is adsorbed onto
CC    cation-exchangers or heparin and its activity is lowered after 10 mins
CC    at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90
CC    deg.C.  OCIF is useful in the control of bone resorption and therefore
CC    in the treatment and prevention of disorders of bone resorption, e.g.
CC    osteoporosis.
SQ    Sequence   1206 BP;    389 A;    283 C;    270 G;    264 T;

  Query Match           78.6%;  Score 1200;  DB 27;  Length 1206;
  Best Local Similarity  99.8%;  Pred. No. 0.00e+00;
  Matches  1203;  Conservative    0;  Mismatches   3;  Indels   0;  Gaps   0;

Db      1 atgaacaacttgctgtgctgcgcgctcgtgtttctggacatctccattaagtggaccacc 60
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Qy    166 TGTGACAAATGTCCTCCTGGTACCTACCTAAAACAACACTGTACAGCAAAGTGGAAGACC 225

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Qy    526 AGAAAACACACAAATTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACA 585

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Qy    766 AAACGGCAACACAGCTCACAAGAACAGACTTTCCAGCTGCTGAAGTTATGGAAACATCAA 825

Db    781 aacaaagaccaagatatagtcaagaagatcatccaagatattgacctctgtgaaaacagc 840
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    826 AACAAAGACCAAGATATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGC 885

Db    841 gtgcagcggcacattggacatgctaacctcaccttcgagcagcttcgtagcttgatggaa 900
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Qy    886 GTGCAGCGGCACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAA 945

Db    901 agcttaccgggaaagaaagtgggagcagaagacattgaaaaaacaataaaggcatgcaaa 960
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RESULT    6
     T33163 standard; DNA; 1206 BP.
     T33163;
DT   22-APR-1997  (first entry)
DE   Mutated OCIF, OCIF-C21S, coding sequence.
KW   Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW   osteoporosis; ss.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   sig_peptide     1..63
FT   /*tag= a
FT   mat_peptide     64..1203
FT   /*tag= b
FT   /product= OCIF-C21S
PN   WO9626217-A1.
PD   29-AUG-1996.
PF   20-FEB-1996; J00374.
PR   20-FEB-1995; JP-054977.
PR   21-JUL-1995; JP-207508.
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI   Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;
PI   Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;
DR   WPI; 96-402320/40.
DR   P-PSDB; R99933.
PT   DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT   for bone resorption control, esp. treatment of osteoporosis
PS   Claim 33; Page 134-135; 183pp; Japanese.
CC   This sequence encodes a mutated version of the full length
CC   osteoclastogenesis inhibitory factor (OCIF) of the invention. This
     sequence encodes OCIF-C21S in which the 21st Cys residue in the mature
     OCIF protein is substituted by Ser. The OCIF of the invention has a
CC   molecular weight by SDS-PAGE of 60 kD under reducing conditions and
CC   120 kD under non-reducing conditions. The protein is adsorbed onto
CC   cation-exchangers or heparin and its activity is lowered after 10 mins
CC   at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90
CC   deg.C. OCIF is useful in the control of bone resorption and therefore
CC   in the treatment and prevention of disorders of bone resorption, e.g.
CC   osteoporosis.
SQ   Sequence   1206 BP;    389 A;    286 C;    267 G;    264 T;

  Query Match           78.5%;  Score 1198;  DB 27;  Length 1206;
  Best Local Similarity  99.7%;  Pred. No. 0.00e+00;
  Matches  1202;  Conservative    0;  Mismatches   4;  Indels   0;  Gaps   0;

Db      1 atgaacaacttgctgtgctgcgcgctcgtgtttctggacatctccattaagtggaccacc 60
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Qy     46 ATGAACAAGTTGCTGTGCTGCGCGCTCGTGTTTCTGGACATCTCCATTAAGTGGACCACC 105

Db     61 caggaaacgtttcctccaaagtaccttcattatgacgaagaaacctctcatcagctgttg 120
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Qy    106 CAGGAAACGTTTCCTCCAAAGTACCTTCATTATGACGAAGAAACCTCTCATCAGCTGTTG 165

Db    121 tgtgacaaatgtcctcctggtacctacctaaaacaacactgtacagcaaagtggaagacc 180
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Qy    166 TGTGACAAATGTCCTCCTGGTACCTACCTAAAACAACACTGTACAGCAAAGTGGAAGACC 225

Db    181 gtgtgcgccccttgccctgaccactactacacagacagctggcacaccactgacgagtgt 240
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Qy    226 GTGTGCGCCCCTTGCCCTGACCACTACTACACAGACAGCTGGCACACCAGTGACGAGTGT 285

Db    241 ctatactgcagccccgtgtgcaaggagctgcagtacgtcaagcaggagtgcaatcgcacc 300
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Qy    286 CTATACTGCAGCCCCGTGTGCAAGGAGCTGCAGTACGTCAAGCAGGAGTGCAATCGCACC 345

Db    301 cacaaccgcgtgtgcgaatgcaaggaagggcgctaccttgagatagagttctgcttgaaa 360
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Qy    346 CACAACCGCGTGTGCGAATGCAAGGAAGGGCGCTACCTTGAGATAGAGTTCTGCTTGAAA 405

Db    361 cataggagctgccctcctggatttggagtggtgcaagctggaaccccagagcgaaataca 420
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Qy    406 CATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGCAAGCTGGAACCCCAGAGCGAAATACA 465

Db    421 gtttgcaaaagatgtccagatgggttcttctcaaatgagacgtcatctaaagcaccctgt 480
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Qy    466 GTTTGCAAAAGATGTCCAGATGGGTTCTTCTCAAATGAGACGTCATCTAAAGCACCCTGT 525

Db    481 agaaaacacacaaattgcagtgtctttggtctcctgctaactcagaaaggaaatgcaaca 540
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Qy    526 AGAAAACACACAAATTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACA 585

Db    541 cacgacaacatatgttccggaaacagtgaatcaactcaaaaatgtggaatagatgttacc 600
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Qy    586 CACGACAACATATGTTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACC 645

Db    601 ctgtgtgaggaggcattcttcaggtttgctgttcctacaaagtttacgcctaactggctt 660
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Qy    646 CTGTGTGAGGAGGCATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTT 705

Db    661 agtgtcttggtagacaatttgcctggcaccaaagtaaacgcagagagtgtagagaggata 720
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Qy    706 AGTGTCTTGGTAGACAATTTGCCTGGCACCAAAGTAAACGCAGAGAGTGTAGAGAGGATA 765

Db    721 aaacggcaacacagctcacaagaacagactttccagctgctgaagttatggaaacatcaa 780
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Qy    766 AAACGGCAACACAGCTCACAAGAACAGACTTTCCAGCTGCTGAAGTTATGGAAACATCAA 825

Db    781 aacaaagaccaagatatagtcaagaagatcatccaagatattgacctcagtgaaaacagc 840
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Qy    826 AACAAAGACCAAGATATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGC 885

Db    841 gtgcagcggcacattggacatgctaacctcaccttcgagcagcttcgtagcttgatggaa 900
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Qy    886 GTGCAGCGGCACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAA 945

Db    901 agcttaccgggaaagaaagtgggagcagaagacattgaaaaaacaataaaggcatgcaaa 960
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Qy    946 AGCTTACCGGGAAAGAAAGTGGGAGCAGAAGACATTGAAAAAACAATAAAGGCATGCAAA 1005

Db    961 cccagtgaccagatcctgaagctgctcagtttgtggcgaataaaaaaatggcgaccaagac 1020
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Qy   1006 CCCAGTGACCAGATCCTGAAGCTGCTCAGTTTGTGGCGAATAAAAAATGGCGACCAAGAC 1065

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Qy   1066 ACCTTGAAGGGCCTAATGCACGCACTAAAGCACTCAAAGACGTACCACTTTCCCAAAACT 1125

Db   1081 gtcactcagagtctaaagaagaccatcaggttccttcacaccttcacaatgtacaaattg 1140
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Qy   1126 GTCACTCAGAGTCTAAAGAAGACCATCAGGTTCCTTCACAGCTTCACAATGTACAAATTG 1185

Db   1141 tatcagaagttatttttagaaatgataggtaaccaggtccaatcagtaaaaataagctgc 1200
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Qy   1186 TATCAGAAGTTATTTTTAGAAATGATAGGTAACCAGGTCCAATCAGTAAAAATAAGCTGC 1245

Db   1201 ttataa 1206
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Qy   1246 TTATAA 1251
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RESULT    7
ID   T33172 standard; DNA; 1200 BP.
AC   T33172;
DT   22-APR-1997  (first entry)
DE   Mutated OCIF, OCIF-CL, coding sequence.
KW   Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW   osteoporosis; ss.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   sig_peptide     1..63
FT   /*tag= a
FT   mat_peptide     64..1197
FT   /*tag= b
FT   /product= OCIF-CL
PN   WO9626217-A1.
PD   29-AUG-1996.
     20-FEB-1996; J00374.
     20-FEB-1995; JP-054977.
...  21-JUL-1995; JP-207508.
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI   Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI   Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR   WPI; 96-402320/40.
DR   P-PSDB; R99942.
PT   DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT   for bone resorption control, esp. treatment of osteoporosis
PS   Claim 60; Page 143-144; 183pp; Japanese.
CC   This sequence encodes a mutated version of the full length
CC   osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
CC   sequence encodes OCIF-CL in which amino acids 379-380 of the mature
CC   protein have been deleted.  The OCIF of the invention has a molecular
CC   weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under
CC   non-reducing conditions.  The protein is adsorbed onto cation-exchangers
CC   or heparin and its activity is lowered after 10 mins at 70 deg.C or 30
CC   mins at 56 deg.C, and is lost after 10 mins at 90 deg.C.  OCIF is useful
CC   in the control of bone resorption and therefore in the treatment and
CC   prevention of disorders of bone resorption, e.g. osteoporosis.
SQ   Sequence   1200 BP;    387 A;    283 C;    268 G;    262 T;

  Query Match           78.3%;  Score 1196;  DB 27;  Length 1200;
  Best Local Similarity  99.9%;  Pred. No. 0.00e+00;
  Matches  1197;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db      1 atgaacaacttgctgtgctgcgcgctcgtgtttctggacatctccattaagtggaccacc 60
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       46 ATGAACAAGTTGCTGTGCTGCGCGCTCGTGTTTCTGGACATCTCCATTAAGTGGACCACC 105

Db     61 caggaaacgtttcctccaaagtaccttcattatgacgaagaaacctctcatcagctgttg 120
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Qy    106 CAGGAAACGTTTCCTCCAAAGTACCTTCATTATGACGAAGAAACCTCTCATCAGCTGTTG 165

Db    121 tgtgacaaatgtcctcctggtacctacctaaaacaacactgtacagcaaagtggaagacc 180
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Qy    166 TGTGACAAATGTCCTCCTGGTACCTACCTAAAACAACACTGTACAGCAAAGTGGAAGACC 225

Db    181 gtgtgcgccccttgccctgaccactactacacagacagctggcacaccagtgacgagtgt 240
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Qy    226 GTGTGCGCCCCTTGCCCTGACCACTACTACACAGACAGCTGGCACACCAGTGACGAGTGT 285

Db    241 ctatactgcagccccgtgtgcaaggagctgcagtacgtcaagcaggagtgcaatcgcacc 300
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Qy    346 CACAACCGCGTGTGCGAATGCAAGGAAGGGCGCTACCTTGAGATAGAGTTCTGCTTGAAA 405

Db    361 cataggagctgccctcctggatttggagtggtgcaagctggaaccccagagcgaaatata 420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    406 CATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGCAAGCTGGAACCCCAGAGCGAAATACA 465

Db    421 gtttgcaaaagatgtccagatgggttcttctcaaatgagacgtcatctaaagcaccctgt 480
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Qy    466 GTTTGCAAAAGATGTCCAGATGGGTTCTTCTCAAATGAGACGTCATCTAAAGCACCCTGT 525

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Qy    526 AGAAAACACACAAATTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACA 585

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Qy    586 CACGACAACATATGTTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACC 645

Db    601 ctgtgtgaggaggcattcttcaggtttgctgttcctacaaagtttacgcctaactggctt 660
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Qy    646 CTGTGTGAGGAGGCATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTT 705

Db    661 agtgtcttggtagacaatttgcctggcaccaaagtaaacgcagagagtgtagagaggata 720
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Qy    706 AGTGTCTTGGTAGACAATTTGCCTGGCACCAAAGTAAACGCAGAGAGTGTAGAGAGGATA 765

Db    721 aaacggcaacacagctcacaagaacagactttccagctgctgaagttatggaaacatcaa 780
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Qy    766 AAACGGCAACACAGCTCACAAGAACAGACTTTCCAGCTGCTGAAGTTATGGAAACATCAA 825

Db    781 aacaaagaccaagatatagtcaagaagatcatccaagatattgacctctgtgaaaacagc 840
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Qy    826 AACAAAGACCAAGATATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGC 885

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Qy    886 GTGCAGCGGCACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAA 945

Db    901 agcttaccgggaaagaaagtgggagcagaagacattgaaaaaacaataaaggcatgcaaa 960
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Qy    946 AGCTTACCGGGAAAGAAAGTGGGAGCAGAAGACATTGAAAAAACAATAAAGGCATGCAAA 1005

Db    961 cccagtgaccagatcctgaagctgctcagtttgtggcgaataaaaaatggcgaccaagac 1020
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Qy   1006 CCCAGTGACCAGATCCTGAAGCTGCTCAGTTTGTGGCGAATAAAAAATGGCGACCAAGAC 1065

Db   1021 accttgaagggcctaatgcacgcactaaagcactcaaagacgtaccactttcccaaaact 1080
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Qy   1066 ACCTTGAAGGGCCTAATGCACGCACTAAAGCACTCAAAGACGTACCACTTTCCCAAAACT 1125

Db   1081 gtcactcagagtctaaagaagaccatcaggttccttcacagcttcacaatgtacaaattg 1140
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy   1126 GTCACTCAGAGTCTAAAGAAGACCATCAGGTTCCTTCACAGCTTCACAATGTACAAATTG 1185

Db   1141 tatcagaagttatttttagaaatgataggtaaccaggtccaatcagtaaaaataagct 1198
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Qy   1186 TATCAGAAGTTATTTTTAGAAATGATAGGTAACCAGGTCCAATCAGTAAAAATAAGCT 1243


RESULT    8
ID   T33178 standard; DNA; 1182 BP.
AC   T33178;
DT   22-APR-1997  (first entry)
DE   Mutated OCIF, OCIF-CBst, coding sequence.
KW   Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW   osteoporosis; ss.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   sig_peptide     1..63
FT   /*tag= a
FT   mat_peptide     64..1179
FT   /*tag= b
FT   /product= OCIF-CBst
PN   WO9626217-A1.
PD   29-AUG-1996.
PF   20-FEB-1996; J00374.
PR   20-FEB-1995; JP-054977.
PR   21-JUL-1995; JP-207508.
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
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PI   Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI   Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR   WPI; 96-402320/40.
DR   P-PSDB; R99948.
PT   DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT   for bone resorption control, esp. treatment of osteoporosis
PS   Claim 78; Page 148; 183pp; Japanese.
CC   This sequence encodes a mutated version of the full length
CC   osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
CC   sequence encodes OCIF-CBst in which Gln371 is substituted with Leu
CC   and amino acids 373-380 of the mature protein have been deleted.  These
CC   amino acid changes have been caused by the introduction of a restriction
CC   site.  The OCIF of the invention has a molecular weight by SDS-PAGE of
CC   60 kD under reducing conditions and 120 kD under non-reducing
CC   conditions.  The protein is adsorbed onto cation-exchangers or heparin
CC   and its activity is lowered after 10 mins at 70 deg.C or 30 mins at 56
CC   deg.C, and is lost after 10 mins at 90 deg.C.  OCIF is useful in the
CC   control of bone resorption and therefore in the treatment and
CC   prevention of disorders of bone resorption, e.g. osteoporosis.
CO   Sequence   1182 BP;    376 A;    280 C;    266 G;    260 T;

  uery Match           76.8%;  Score 1173;  DB 27;  Length 1182;
  Best Local Similarity  99.7%;  Pred. No. 0.00e+00;
  Matches  1176;  Conservative    0;  Mismatches   3;  Indels   0;  Gaps   0;

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Db     61 caggaaacgtttcctccaaagtaccttcattatgacgaagaaacctctcatcagctgttg 120
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Qy    106 CAGGAAACGTTTCCTCCAAAGTACCTTCATTATGACGAAGAAACCTCTCATCAGCTGTTG 165

Db    121 tgtgacaaatgtcctcctggtacctacctaaaacaacactgtacagcaaagtggaagacc 180
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Qy    166 TGTGACAAATGTCCTCCTGGTACCTACCTAAAACAACACTGTACAGCAAAGTGGAAGACC 225

Db    181 gtgtgcgccccttgccctgaccactactacacagacagctggcacaccagtgacgagtgt 240
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Db    241 ctatactgcagccccgtgtgcaaggagctgcagtacgtcaagcaggagtgcaatcgcacc 300
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Db    301 cacaaccgcgtgtgcgaatgcaaggaagggcgctaccttgagatagagttctgcttgaaa 360
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Qv    346 CACAACCGCGTGTGCGAATGCAAGGAAGGGCGCTACCTTGAGATAGAGTTCTGCTTGAAA 405

      361 cataggagctgccctcctggatttggagtggtgcaagctggaaccccagagcgaaatata 420
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Qy    406 CATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGCAAGCTGGAACCCCAGAGCGAAATACA 465

Db    421 gtttgcaaaagatgtccagatgggttcttctcaaatgagacgtcatctaaagcaccctgt 480
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Qy    466 GTTTGCAAAAGATGTCCAGATGGGTTCTTCTCAAATGAGACGTCATCTAAAGCACCCTGT 525

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Qy    586 CACGACAACATATGTTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACC 645

Db    601 ctgtgtgaggaggcattcttcaggtttgctgttcctacaaagtttacgcctaactggctt 660
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Qy    646 CTGTGTGAGGAGGCATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTT 705

Db    661 agtgtcttggtagacaatttgcctggcaccaaagtaaacgcagagagtgtagagaggata 720
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Qy    706 AGTGTCTTGGTAGACAATTTGCCTGGCACCAAAGTAAACGCAGAGAGTGTAGAGAGGATA 765

Db    721 aaacggcaacacagctcacaagaacagactttccagctgctgaagtttatggaaacatcaa 780
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Qy    766 AAACGGCAACACAGCTCACAAGAACAGACTTTCCAGCTGCTGAAGTTATGGAAACATCAA 825

Db    781 aacaaagaccaagatatagtcaagaagatcatccaagatattgacctctgtgaaaacagc 840
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Qy    826 AACAAAGACCAAGATATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGC 885

Db    841 gtgcagcggcacattggacatgctaacctcaccttcgagcagcttcgtagcttgatggaa 900
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Qy    886 GTGCAGCGGCACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAA 945

Db    901 agcttaccgggaaagaaagtgggagcagaagacattgaaaaaacaataaaggcatgcaaa 960
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Db    961 cccagtgaccagatcctgaagctgctcagtttgtggcgaataaaaaatggcgaccaagac 1020
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Db   1021 accttgaagggcctaatgcacgcactaaagcactcaaagacgtaccactttcccaaaact 1080
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Qy   1066 ACCTTGAAGGGCCTAATGCACGCACTAAAGCACTCAAAGACGTACCACTTTCCCAAAACT 1125

Db   1081 gtcactcagagtctaaagaagaccatcaggttccttcacagcttcacaatgtacaaattg 1140
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy   1126 GTCACTCAGAGTCTAAAGAAGACCATCAGGTTCCTTCACAGCTTCACAATGTACAAATTG 1185

Db   1141 tatcagaagttatttttagaaatgataggtaacctagtc 1179
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Qy   1186 TATCAGAAGTTATTTTTAGAAATGATAGGTAACCAGGTC 1224


RESULT    9
ID   T33173 standard; DNA; 1056 BP.
AC   T33173;
DT   22-APR-1997  (first entry)
DE   Mutated OCIF, OCIF-CC, coding sequence.
KW   Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW   osteoporosis; ss.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   sig_peptide     1..63
FT   /*tag= a
FT   mat_peptide     64..1053
FT   /*tag= b
FT   /product= OCIF-CC
PN   WO9626217-A1.
PD   29-AUG-1996.
PF   20-FEB-1996; J00374.
PR   20-FEB-1995; JP-054977.
PR   21-JUL-1995; JP-207508.
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI   Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI   Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR   WPI; 96-402320/40.
DR   P-PSDB; R99943.
PT   DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT   for bone resorption control, esp. treatment of osteoporosis
PS   Claim 63; Page 144-145; 183pp; Japanese.
CC   This sequence encodes a mutated version of the full length
CC   osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
CC   sequence encodes OCIF-CC in which amino acids 331-380 of the mature
CC   protein have been deleted.  The OCIF of the invention has a molecular
CC   weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under
CC   non-reducing conditions.  The protein is adsorbed onto cation-exchangers
CC   or heparin and its activity is lowered after 10 mins at 70 deg.C or 30
CC   mins at 56 deg.C, and is lost after 10 mins at 90 deg.C.  OCIF is useful
CC   in the control of bone resorption and therefore in the treatment and
CC   prevention of disorders of bone resorption, e.g. osteoporosis.
SQ   Sequence   1056 BP;    332 A;    252 C;    247 G;    225 T;

  Query Match           68.9%;  Score 1052;  DB 27;  Length 1056;
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  Best Local Similarity  99.9%;  Pred. No. 0.00e+00;
  Matches  1053;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db      1 atgaacaacttgctgtgctgcgcgctcgtgtttctggacatctccattaagtggaccacc 60
          |||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy     46 ATGAACAAGTTGCTGTGCTGCGCGCTCGTGTTTCTGGACATCTCCATTAAGTGGACCACC 105

Db     61 caggaaacgtttcctccaaagtaccttcattatgacgaagaaacctctcatcagctgttg 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    106 CAGGAAACGTTTCCTCCAAAGTACCTTCATTATGACGAAGAAACCTCTCATCAGCTGTTG 165

Db    121 tgtgacaaatgtcctcctggtacctacctaaaacaacactgtacagcaaagtggaagacc 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    166 TGTGACAAATGTCCTCCTGGTACCTACCTAAAACAACACTGTACAGCAAAGTGGAAGACC 225

Db    181 gtgtgcgcccccttgccctgaccactactacacagacagctggcacaccagtgacgagtgt 240
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Qy    226 GTGTGCGCCCCTTGCCCTGACCACTACTACACAGACAGCTGGCACACCAGTGACGAGTGT 285

      241 ctatactgcagccccgtgtgcaaggagctgcagtacgtcaagcaggagtgcaatcgcacc 300
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Qy    286 CTATACTGCAGCCCCGTGTGCAAGGAGCTGCAGTACGTCAAGCAGGAGTGCAATCGCACC 345

Db    301 cacaaccgcgtgtgcgaatgcaaggaagggcgctaccttgagatagagttctgcttgaaa 360
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Qy    346 CACAACCGCGTGTGCGAATGCAAGGAAGGGCGCTACCTTGAGATAGAGTTCTGCTTGAAA 405

Db    361 cataggagctgccctcctggatttggagtggtgcaagctggaaccccagagcgaaatata 420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    406 CATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGCAAGCTGGAACCCCAGAGCGAAATACA 465

Db    421 gtttgcaaaagatgtccagatgggttcttctcaaatgagacgtcatctaaagcaccctgt 480
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Qy    466 GTTTGCAAAAGATGTCCAGATGGGTTCTTCTCAAATGAGACGTCATCTAAAGCACCCTGT 525

Db    481 agaaaacacacaaattgcagtgtctttggtctcctgctaactcagaaaggaaatgcaaca 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    526 AGAAAACACACAAATTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACA 585

Db    541 cacgacaacatatgttccggaaacagtgaatcaactcaaaaatgtggaatagatgttacc 600
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    586 CACGACAACATATGTTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACC 645

Db    601 ctgtgtgaggaggcattcttcaggtttgctgttcctacaaagtttacgcctaactggctt 660
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Qy    646 CTGTGTGAGGAGGCATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTT 705

      661 agtgtcttggtagacaatttgcctggcaccaaagtaaacgcagagagtgtagagaggata 720
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Qy    706 AGTGTCTTGGTAGACAATTTGCCTGGCACCAAAGTAAACGCAGAGAGTGTAGAGAGGATA 765

Db    721 aaacggcaacacagctcacaagaacagactttccagctgctgaagttatggaaacatcaa 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    766 AAACGGCAACACAGCTCACAAGAACAGACTTTCCAGCTGCTGAAGTTATGGAAACATCAA 825

Db    781 aacaaagaccaagatatagtcaagaagatcatccaagatattgacctctgtgaaaacagc 840
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Qy    826 AACAAAGACCAAGATATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGC 885

Db    841 gtgcagcggcacattggacatgctaacctcaccttcgagcagcttcgtagcttgatggaa 900
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    886 GTGCAGCGGCACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAA 945

Db    901 agcttaccgggaaagaaagtgggagcagaagacattgaaaaaacaataaaggcatgcaaa 960
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    946 AGCTTACCGGGAAAGAAAGTGGGAGCAGAAGACATTGAAAAAACAATAAAGGCATGCAAA 1005

Db    961 cccagtgaccagatcctgaagctgctcagtttgtggcgaataaaaaatggcgaccaagac 1020
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy   1006 CCCAGTGACCAGATCCTGAAGCTGCTCAGTTTGTGGCGAATAAAAAATGGCGACCAAGAC 1065

Db   1021 accttgaagggcctaatgcacgcactaaagcact 1054
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Qy   1066 ACCTTGAAGGGCCTAATGCACGCACTAAAGCACT 1099


RESULT   10
ID   T33166 standard; DNA; 1083 BP.
AC   T33166;
DT   22-APR-1997  (first entry)
DE   Mutated OCIF, OCIF-DCR1, coding sequence.
KW   Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW   osteoporosis; ss.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   sig_peptide     1..63
FT   /*tag= a
FT   mat_peptide     64..1080
FT   /*tag= b
FT   /product= OCIF-DCR1
PN   WO9626217-A1.
PD   29-AUG-1996.
PF   20-FEB-1996; J00374.
PR   20-FEB-1995; JP-054977.
PR   21-JUL-1995; JP-207508.
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI   Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI   Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR   WPI; 96-402320/40.
DR   P-PSDB; R99936.
PT   DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT   for bone resorption control, esp. treatment of osteoporosis
PS   Claim 42; Page 137-138; 183pp; Japanese.
CC   This sequence encodes a mutated version of the full length
CC   osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
CC   sequence encodes OCIF-DCR1 in which amino acids 2-42 of the mature
CC   protein have been deleted.  The OCIF of the invention has a molecular
CC   weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under
CC   non-reducing conditions.  The protein is adsorbed onto cation-exchangers
CC   or heparin and its activity is lowered after 10 mins at 70 deg.C or 30
CC   mins at 56 deg.C, and is lost after 10 mins at 90 deg.C.  OCIF is useful
CC   in the control of bone resorption and therefore in the treatment and
CC   prevention of disorders of bone resorption, e.g. osteoporosis.
SQ   Sequence   1083 BP;    352 A;    250 C;    246 G;    235 T;

  Query Match           66.6%;  Score 1017;  DB 27;  Length 1083;
  Best Local Similarity 100.0%;  Pred. No. 0.00e+00;
  Matches  1017;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db     67 ccttgccctgaccactactacacagacagctggcacaccagtgacgagtgtctatactgc 126
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Qy    235 CCTTGCCCTGACCACTACTACACAGACAGCTGGCACACCAGTGACGAGTGTCTATACTGC 294

Db    127 agccccgtgtgcaaggagctgcagtacgtcaagcaggagtgcaatcgcacccacaaccgc 186
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Qy    295 AGCCCCGTGTGCAAGGAGCTGCAGTACGTCAAGCAGGAGTGCAATCGCACCCACAACCGC 354

Db    187 gtgtgcgaatgcaaggaagggcgctaccttgagatagagttctgcttgaaacataggagc 246
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    355 GTGTGCGAATGCAAGGAAGGGCGCTACCTTGAGATAGAGTTCTGCTTGAAACATAGGAGC 414

Db    247 tgccctcctggatttggagtggtgcaagctggaaccccagagcgaaatacagtttgcaaa 306
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Qy    415 TGCCCTCCTGGATTTGGAGTGGTGCAAGCTGGAACCCCAGAGCGAAATACAGTTTGCAAA 474

Db    307 agatgtccagatgggttcttctcaaatgagacgtcatctaaagcaccctgtagaaaacac 366
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    475 AGATGTCCAGATGGGTTCTTCTCAAATGAGACGTCATCTAAAGCACCCTGTAGAAAACAC 534

Db    367 acaaattgcagtgtctttggtctcctgctaactcagaaaggaaatgcaacacacgacaac 426
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    535 ACAAATTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACACACGACAAC 594

Db    427 atatgttccggaaacagtgaatcaactcaaaaatgtggaatagatgttaccctgtgtgag 486
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Qy    595 ATATGTTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACCCTGTGTGAG 654
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Db    487 gaggcattcttcaggtttgctgttcctacaaagtttacgcctaactggcttagtgtcttg 546
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Qy    655 GAGGCATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTTAGTGTCTTG 714

Db    547 gtagacaatttgcctggcaccaaagtaaacgcagagagtgtagagaggataaaacggcaa 606
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    715 GTAGACAATTTGCCTGGCACCAAAGTAAACGCAGAGAGTGTAGAGAGGATAAAACGGCAA 774

Db    607 cacagctcacaagaacagactttccagctgctgaagttatggaaacatcaaaacaaagac 666
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    775 CACAGCTCACAAGAACAGACTTTCCAGCTGCTGAAGTTATGGAAACATCAAAACAAAGAC 834

Db    667 caagatatagtcaagaagatcatccaagatattgacctctgtgaaaacagcgtgcagcgg 726
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Qy    835 CAAGATATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGCGTGCAGCGG 894

Db    727 cacattggacatgctaacctcaccttcgagcagcttcgtagcttgatggaaagcttaccg 786
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Qy    895 CACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAAAGCTTACCG 954

          787 ggaaagaaagtgggagcagaagacattgaaaaaacaataaaggcatgcaaacccagtgac 846
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Qy    955 GGAAAGAAAGTGGGAGCAGAAGACATTGAAAAAACAATAAAGGCATGCAAACCCAGTGAC 1014

Db    847 cagatcctgaagctgctcagtttgtggcgaataaaaaatggcgaccaagacaccttgaag 906
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy   1015 CAGATCCTGAAGCTGCTCAGTTTGTGGCGAATAAAAAATGGCGACCAAGACACCTTGAAG 1074

Db    907 ggcctaatgcacgcactaaagcactcaaagacgtaccactttcccaaaactgtcactcag 966
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Qy   1075 GGCCTAATGCACGCACTAAAGCACTCAAAGACGTACCACTTTCCCAAAACTGTCACTCAG 1134

Db    967 agtctaaagaagaccatcaggttccttcacagcttcacaatgtacaaattgtatcagaag 1026
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Qy   1135 AGTCTAAAGAAGACCATCAGGTTCCTTCACAGCTTCACAATGTACAAATTGTATCAGAAG 1194

Db   1027 ttatttttagaaatgataggtaaccaggtccaatcagtaaaaataagctgcttataa 1083
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Qy   1195 TTATTTTTAGAAATGATAGGTAACCAGGTCCAATCAGTAAAAATAAGCTGCTTATAA 1251


RESULT   11
ID   T33179 standard; DNA; 966 BP.
AC   T33179;
DT   22-APR-1997  (first entry)
DE   Mutated OCIF, OCIF-CSph, coding sequence.
KW   Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
     osteoporosis; ss.
     Synthetic.
FH   Key             Location/Qualifiers
FT   sig_peptide     1..63
FT   /*tag= a
FT   mat_peptide     64..963
FT   /*tag= b
FT   /product= OCIF-CSph
PN   WO9626217-A1.
PD   29-AUG-1996.
PF   20-FEB-1996; J00374.
PR   20-FEB-1995; JP-054977.
PR   21-JUL-1995; JP-207508.
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI   Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI   Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR   WPI; 96-402320/40.
DR   P-PSDB; R99949.
PT   DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT   for bone resorption control, esp. treatment of osteoporosis
PS   Claim 81; Page 149; 183pp; Japanese.
CC   This sequence encodes a mutated version of the full length
CC   osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
CC   sequence encodes OCIF-CSph in which amino acids 298-380 of the mature
CC   protein have been deleted and replaced by Ser-Leu-Asp.  These amino
CC   acid changes have been caused by the introduction of a restriction
CC   site.  The OCIF of the invention has a molecular weight by SDS-PAGE of
CC   60 kD under reducing conditions and 120 kD under non-reducing
CC   conditions.  The protein is adsorbed onto cation-exchangers or heparin
CC   and its activity is lowered after 10 mins at 70 deg.C or 30 mins at 56
CC   deg.C, and is lost after 10 mins at 90 deg.C.  OCIF is useful in the
CC   control of bone resorption and therefore in the treatment and
CC   prevention of disorders of bone resorption, e.g. osteoporosis.
SQ   Sequence   966 BP;    301 A;    228 C;    226 G;    211 T;

  Query Match           62.3%;  Score 951;  DB 27;  Length 966;
  Best Local Similarity  99.9%;  Pred. No. 0.00e+00;
  Matches   952;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db      1 atgaacaacttgctgtgctgcgcgctcgtgtttctggacatctccattaagtggaccacc 60
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Qy     46 ATGAACAAGTTGCTGTGCTGCGCGCTCGTGTTTCTGGACATCTCCATTAAGTGGACCACC 105

Db     61 caggaaacgtttcctccaaagtaccttcattatgacgaagaaacctctcatcagctgttg 120
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Qy    106 CAGGAAACGTTTCCTCCAAAGTACCTTCATTATGACGAAGAAACCTCTCATCAGCTGTTG 165

Db    121 tgtgacaaatgtcctcctggtacctacctaaaacaacactgtacagcaaagtggaagacc 180
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Qy    166 TGTGACAAATGTCCTCCTGGTACCTACCTAAAACAACACTGTACAGCAAAGTGGAAGACC 225

Db    181 gtgtgcgccccttgccctgaccactactacacagacagctggcacaccagtgacgagtgt 240
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Qy    226 GTGTGCGCCCCTTGCCCTGACCACTACTACACAGACAGCTGGCACACCAGTGACGAGTGT 285

Db    241 ctatactgcagccccgtgtgcaaggagctgcagtacgtcaagcaggagtgcaatcgcacc 300
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Qy    286 CTATACTGCAGCCCCGTGTGCAAGGAGCTGCAGTACGTCAAGCAGGAGTGCAATCGCACC 345

Db    301 cacaaccgcgtgtgcgaatgcaaggaagggcgctaccttgagatagagttctgcttgaaa 360
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Qy    346 CACAACCGCGTGTGCGAATGCAAGGAAGGGCGCTACCTTGAGATAGAGTTCTGCTTGAAA 405

Db    361 cataggagctgccctcctggatttggagtggtgcaagctggaaccccagagcgaaatata 420
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Qy    406 CATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGCAAGCTGGAACCCCAGAGCGAAATACA 465

Db    421 gtttgcaaaagatgtccagatgggttcttctcaaatgagacgtcatctaaagcaccctgt 480
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Qy    466 GTTTGCAAAAGATGTCCAGATGGGTTCTTCTCAAATGAGACGTCATCTAAAGCACCCTGT 525

Db    481 agaaaacacacaaattgcagtgtctttggtctcctgctaactcagaaaggaaatgcaaca 540
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Qy    526 AGAAAACACACAAATTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACA 585

Db    541 cacgacaacatatgttccggaaacagtgaatcaactcaaaaatgtggaatagatgttacc 600
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Qy    586 CACGACAACATATGTTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACC 645

Db    601 ctgtgtgaggaggcattcttcaggtttgctgttcctacaaagtttacgcctaactggctt 660
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Qy    646 CTGTGTGAGGAGGCATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTT 705

Db    661 agtgtcttggtagacaatttgcctggcaccaaagtaaacgcagagagtgtagagaggata 720
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Qy    706 AGTGTCTTGGTAGACAATTTGCCTGGCACCAAAGTAAACGCAGAGAGTGTAGAGAGGATA 765

Db    721 aaacggcaacacagctcacaagaacagactttccagctgctgaagttatggaaacatcaa 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    766 AAACGGCAACACAGCTCACAAGAACAGACTTTCCAGCTGCTGAAGTTATGGAAACATCAA 825

Db    781 aacaaagaccaagatatagtcaagaagatcatccaagatattgacctctgtgaaaacagc 840
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Qy    826 AACAAAGACCAAGATATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGC 885

Db    841 gtgcagcggcacattggacatgctaacctcaccttcgagcagcttcgtagcttgatggaa 900
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    886 GTGCAGCGGCACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAA 945
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Db    901 agcttaccgggaaagaaagtgggagcagaagacattgaaaaaacaataaaggc 953
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Qy    946 AGCTTACCGGGAAAGAAAGTGGGAGCAGAAGACATTGAAAAAACAATAAAGGC 998


RESULT   12
ID   T33167 standard; DNA; 1080 BP.
AC   T33167;
DT   22-APR-1997  (first entry)
DE   Mutated OCIF, OCIF-DCR2, coding sequence.
KW   Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW   osteoporosis; ss.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   sig_peptide     1..63
FT   /*tag= a
FT   mat_peptide     64..1077
     /*tag= b
     /product= OCIF-DCR2
     WO9626217-A1.
PD   29-AUG-1996.
PF   20-FEB-1996; J00374.
PR   20-FEB-1995; JP-054977.
PR   21-JUL-1995; JP-207508.
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI   Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI   Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR   WPI; 96-402320/40.
DR   P-PSDB; R99937.
PT   DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT   for bone resorption control, esp. treatment of osteoporosis
PS   Claim 45; Page 138-139; 183pp; Japanese.
CC   This sequence encodes a mutated version of the full length
CC   osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
CC   sequence encodes OCIF-DCR2 in which amino acids 43-84 of the mature
CC   protein have been deleted.  The OCIF of the invention has a molecular
CC   weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under
CC   non-reducing conditions.  The protein is adsorbed onto cation-exchangers
CC   or heparin and its activity is lowered after 10 mins at 70 deg.C or 30
CC   mins at 56 deg.C, and is lost after 10 mins at 90 deg.C.  OCIF is useful
CC   in the control of bone resorption and therefore in the treatment and
CC   prevention of disorders of bone resorption, e.g. osteoporosis.
SQ   Sequence   1080 BP;    357 A;    243 C;    236 G;    244 T;

  Query Match           58.3%;  Score 890;  DB 27;  Length 1080;
  Best Local Similarity  99.9%;  Pred. No. 0.00e+00;
  atches   891;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db    189 cgaatgcaaggaagggcgctaccttgagatagagttctgcttgaaacataggagctgccc 248
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    360 CGAATGCAAGGAAGGGCGCTACCTTGAGATAGAGTTCTGCTTGAAACATAGGAGCTGCCC 419

Db    249 tcctggatttggagtggtgcaagctggaaccccagagcgaaatacagtttgcaaaagatg 308
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    420 TCCTGGATTTGGAGTGGTGCAAGCTGGAACCCCAGAGCGAAATACAGTTTGCAAAAGATG 479

Db    309 tccagatgggttcttctcaaatgagacgtcatctaaagcaccctgtagaaaacacacaaa 368
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    480 TCCAGATGGGTTCTTCTCAAATGAGACGTCATCTAAAGCACCCTGTAGAAAACACACAAA 539

Db    369 ttgcagtgtctttggtctcctgctaactcagaaaggaaatgcaacacacgacaacatatg 428
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    540 TTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACACACGACAACATATG 599

Db    429 ttccggaaacagtgaatcaactcaaaaatgtggaatagatgttaccctgtgtgaggaggc 488
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    600 TTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACCCTGTGTGAGGAGGC 659

Db    489 attcttcaggtttgctgttcctacaaagtttacgcctaactggcttagtgtcttggtaga 548
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    660 ATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTTAGTGTCTTGGTAGA 719

Db    549 caatttgcctggcaccaaagtaaacgcagagagtgtagagaggataaaacggcaacacag 608
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    720 CAATTTGCCTGGCACCAAAGTAAACGCAGAGAGTGTAGAGAGGATAAAACGGCAACACAG 779

Db    609 ctcacaagaacagactttccagctgctgaagttatggaaacatcaaaacaaagaccaaga 668
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    780 CTCACAAGAACAGACTTTCCAGCTGCTGAAGTTATGGAAACATCAAAACAAAGACCAAGA 839

Db    669 tatagtcaagaagatcatccaagatattgacctctgtgaaaacagcgtgcagcggcacat 728
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    840 TATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGCGTGCAGCGGCACAT 899

Db    729 tggacatgctaacctcaccttcgagcagcttcgtagcttgatggaaagcttaccgggaaa 788
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    900 TGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAAAGCTTACCGGGAAA 959

Db    789 gaaagtgggagcagaagacattgaaaaaacaataaaggcatgcaaacccagtgaccagat 848
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    960 GAAAGTGGGAGCAGAAGACATTGAAAAAACAATAAAGGCATGCAAACCCAGTGACCAGAT 1019

Db    849 cctgaagctgctcagtttgtggcgaataaaaaatggcgaccaagacaccttgaagggcct 908
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy   1020 CCTGAAGCTGCTCAGTTTGTGGCGAATAAAAAATGGCGACCAAGACACCTTGAAGGGCCT 1079

Db    909 aatgcacgcactaaagcactcaaagacgtaccactttcccaaaactgtcactcagagtct 968
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy   1080 AATGCACGCACTAAAGCACTCAAAGACGTACCACTTTCCCAAAACTGTCACTCAGAGTCT 1139

Db    969 aaagaagaccatcaggttccttcacagcttcacaatgtacaaattgtatcacaagttatt 1028
          |||||||||||||||||||||||||||||||||||||||||||||||||||| ||||||||
Qy   1140 AAAGAAGACCATCAGGTTCCTTCACAGCTTCACAATGTACAAATTGTATCAGAAGTTATT 1199

Db   1029 tttagaaatgataggtaaccaggtccaatcagtaaaaataagctgcttataa 1080
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy   1200 TTTAGAAATGATAGGTAACCAGGTCCAATCAGTAAAAATAAGCTGCTTATAA 1251


RESULT   13
ID   T33171 standard; DNA; 984 BP.
AC   T33171;
DT   22-APR-1997  (first entry)
DE   Mutated OCIF, OCIF-DDD2, coding sequence.
KW   Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW   osteoporosis; ss.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   sig_peptide     1..63
FT   /*tag= a
FT   mat_peptide     64..981
FT   /*tag= b
FT   /product= OCIF-DDD2
PN   WO9626217-A1.
PD   29-AUG-1996.
PF   20-FEB-1996; J00374.
PR   20-FEB-1995; JP-054977.
PR   21-JUL-1995; JP-207508.
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI   Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI   Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR   WPI; 96-402320/40.
DR   P-PSDB; R99941.
PT   DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT   for bone resorption control, esp. treatment of osteoporosis
PS   Claim 57; Page 142-143; 183pp; Japanese.
CC   This sequence encodes a mutated version of the full length
CC   osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
CC   sequence encodes OCIF-DDD2 in which amino acids 253-326 of the mature
CC   protein have been deleted.  The OCIF of the invention has a molecular
CC   weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under
CC   non-reducing conditions.  The protein is adsorbed onto cation-exchangers
CC   or heparin and its activity is lowered after 10 mins at 70 deg.C or 30
CC   mins at 56 deg.C, and is lost after 10 mins at 90 deg.C.  OCIF is useful
CC   in the control of bone resorption and therefore in the treatment and
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CC   prevention of disorders of bone resorption, e.g. osteoporosis.
SQ   Sequence   984 BP;    313 A;    236 C;    212 G;    223 T;

  Query Match           53.4%;  Score 816;  DB 27;  Length 984;
  Best Local Similarity  99.9%;  Pred. No. 0.00e+00;
  Matches   817;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db      1 atgaacaacttgctgtgctgcgcgctcgtgtttctggacatctccattaagtggaccacc 60
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Qy     46 ATGAACAAGTTGCTGTGCTGCGCGCTCGTGTTTCTGGACATCTCCATTAAGTGGACCACC 105

Db     61 caggaaacgtttcctccaaagtaccttcattatgacgaagaaacctctcatcagctgttg 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    106 CAGGAAACGTTTCCTCCAAAGTACCTTCATTATGACGAAGAAACCTCTCATCAGCTGTTG 165

Db    121 tgtgacaaatgtcctcctggtacctacctaaaacaacactgtacagcaaagtggaagacc 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    166 TGTGACAAATGTCCTCCTGGTACCTACCTAAAACAACACTGTACAGCAAAGTGGAAGACC 225

Db    181 gtgtgcgccccttgccctgaccactactacacagacagctggcacaccagtgacgagtgt 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    226 GTGTGCGCCCCTTGCCCTGACCACTACTACACAGACAGCTGGCACACCAGTGACGAGTGT 285

Db    241 ctatactgcagccccgtgtgcaaggagctgcagtacgtcaagcaggagtgcaatcgcacc 300
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Qy    286 CTATACTGCAGCCCCGTGTGCAAGGAGCTGCAGTACGTCAAGCAGGAGTGCAATCGCACC 345

Db    301 cacaaccgcgtgtgcgaatgcaaggaagggcgctaccttgagatagagttctgcttgaaa 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    346 CACAACCGCGTGTGCGAATGCAAGGAAGGGCGCTACCTTGAGATAGAGTTCTGCTTGAAA 405

Db    361 cataggagctgccctcctggatttggagtggtgcaagctggaaccccagagcgaaatata 420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    406 CATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGCAAGCTGGAACCCCAGAGCGAAATACA 465

Db    421 gtttgcaaaagatgtccagatgggttcttctcaaatgagacgtcatctaaagcaccctgt 480
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    466 GTTTGCAAAAGATGTCCAGATGGGTTCTTCTCAAATGAGACGTCATCTAAAGCACCCTGT 525

Db    481 agaaaacacacaaattgcagtgtctttggtctcctgctaactcagaaaggaaatgcaaca 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    526 AGAAAACACACAAATTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACA 585

Db    541 cacgacaacatatgttccggaaacagtgaatcaactcaaaaatgtggaatagatgttacc 600
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    586 CACGACAACATATGTTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACC 645

Db    601 ctgtgtgaggaggcattcttcaggtttgctgttcctacaaagtttacgcctaactggctt 660
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    646 CTGTGTGAGGAGGCATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTT 705

Db    661 agtgtcttggtagacaatttgcctggcaccaaagtaaacgcagagagtgtagagaggata 720
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    706 AGTGTCTTGGTAGACAATTTGCCTGGCACCAAAGTAAACGCAGAGAGTGTAGAGAGGATA 765

Db    721 aaacggcaacacagctcacaagaacagactttccagctgctgaagttatggaaacatcaa 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    766 AAACGGCAACACAGCTCACAAGAACAGACTTTCCAGCTGCTGAAGTTATGGAAACATCAA 825

Db    781 aacaaagaccaagatatagtcaagaagatcatccaaga 818
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Qy    826 AACAAAGACCAAGATATAGTCAAGAAGATCATCCAAGA 863


RESULT   14
ID   T33174 standard; DNA; 819 BP.
AC   T33174;
DT   22-APR-1997  (first entry)
DE   Mutated OCIF, OCIF-CDD2, coding sequence.
KW   Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW   osteoporosis; ss.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   sig_peptide     1..63
FT   /*tag= a
FT   mat_peptide     64..816
FT   /*tag= b
FT   /product= OCIF-CDD2
PN   WO9626217-A1.
PD   29-AUG-1996.
PF   20-FEB-1996; J00374.
PR   20-FEB-1995; JP-054977.
PR   21-JUL-1995; JP-207508.
PA   (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI   Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI   Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR   WPI; 96-402320/40.
DR   P-PSDB; R99944.
PT   DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT   for bone resorption control, esp. treatment of osteoporosis
PS   Claim 66; Page 145; 183pp; Japanese.
CC   This sequence encodes a mutated version of the full length
CC   osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
CC   sequence encodes OCIF-CDD2 in which amino acids 252-380 of the mature
CC   protein have been deleted.  The OCIF of the invention has a molecular
CC   weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under
CC   non-reducing conditions.  The protein is adsorbed onto cation-exchangers
CC   or heparin and its activity is lowered after 10 mins at 70 deg.C or 30
CC   mins at 56 deg.C, and is lost after 10 mins at 90 deg.C.  OCIF is useful
CC   in the control of bone resorption and therefore in the treatment and
CC   prevention of disorders of bone resorption, e.g. osteoporosis.
SQ   Sequence   819 BP;    251 A;    198 C;    188 G;    182 T;

  Query Match           53.3%;  Score 814;  DB 27;  Length 819;
  Best Local Similarity  99.9%;  Pred. No. 0.00e+00;
  Matches   815;  Conservative    0;  Mismatches   1;  Indels   0;  Gaps   0;

Db      1 atgaacaacttgctgtgctgcgcgctcgtgtttctggacatctccattaagtggaccacc 60
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Qy     46 ATGAACAAGTTGCTGTGCTGCGCGCTCGTGTTTCTGGACATCTCCATTAAGTGGACCACC 105

Db     61 caggaaacgtttcctccaaagtaccttcattatgacgaagaaacctctcatcagctgttg 120
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Qy    106 CAGGAAACGTTTCCTCCAAAGTACCTTCATTATGACGAAGAAACCTCTCATCAGCTGTTG 165

Db    121 tgtgacaaatgtcctcctggtacctacctaaaacaacactgtacagcaaagtggaagacc 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    166 TGTGACAAATGTCCTCCTGGTACCTACCTAAAACAACACTGTACAGCAAAGTGGAAGACC 225

Db    181 gtgtgcgccccttgccctgaccactactacacagacagctggcacaccagtgacgagtgt 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    226 GTGTGCGCCCCTTGCCCTGACCACTACTACACAGACAGCTGGCACACCAGTGACGAGTGT 285

Db    241 ctatactgcagccccgtgtgcaaggagctgcagtacgtcaagcaggagtgcaatcgcacc 300
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Qy    286 CTATACTGCAGCCCCGTGTGCAAGGAGCTGCAGTACGTCAAGCAGGAGTGCAATCGCACC 345

Db    301 cacaaccgcgtgtgcgaatgcaaggaagggcgctaccttgagatagagttctgcttgaaa 360
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Qy    346 CACAACCGCGTGTGCGAATGCAAGGAAGGGCGCTACCTTGAGATAGAGTTCTGCTTGAAA 405

Db    361 cataggagctgccctcctggatttggagtggtgcaagctggaaccccagagcgaaatata 420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    406 CATAGGAGCTGCCCTCCTGGATTTGGAGTGGTGCAAGCTGGAACCCCAGAGCGAAATACA 465

Db    421 gtttgcaaaagatgtccagatgggttcttctcaaatgagacgtcatctaaagcaccctgt 480
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Qy    466 GTTTGCAAAAGATGTCCAGATGGGTTCTTCTCAAATGAGACGTCATCTAAAGCACCCTGT 525

Db    481 agaaaacacacaaattgcagtgtctttggtctcctgctaactcagaaaggaaatgcaaca 540
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Qy    526 AGAAAACACACAAATTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACA 585

Db    541 cacgacaacatatgttccggaaacagtgaatcaactcaaaaatgtggaatagatgttacc 600
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Qy    586 CACGACAACATATGTTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACC 645
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Db    601 ctgtgtgaggaggcattcttcaggtttgctgttcctacaaagtttacgcctaactggctt 660
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Qy    646 CTGTGTGAGGAGGCATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTT 705

Db    661 agtgtcttggtagacaatttgcctggcaccaaagtaaacgcagagagtgtagagaggata 720
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Qy    706 AGTGTCTTGGTAGACAATTTGCCTGGCACCAAAGTAAACGCAGAGAGTGTAGAGAGGATA 765

Db    721 aaacggcaacacagctcacaagaacagactttccagctgctgaagttatggaaacatcaa 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy    766 AAACGGCAACACAGCTCACAAGAACAGACTTTCCAGCTGCTGAAGTTATGGAAACATCAA 825

Db    781 aacaaagaccaagatatagtcaagaagatcatccaa 816
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Qy    826 AACAAAGACCAAGATATAGTCAAGAAGATCATCCAA 861
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ULT   15
    T33168 standard; DNA; 1080 BP.
    T33168;
DT  22-APR-1997  (first entry)
DE  Mutated OCIF, OCIF-DCR3, coding sequence.
KW  Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
KW  osteoporosis; ss.
OS  Synthetic.
FH  Key             Location/Qualifiers
FT  sig_peptide     1..63
FT  /*tag= a
FT  mat_peptide     64..1077
FT  /*tag= b
FT  /product= OCIF-DCR3
PN  WO9626217-A1.
PD  29-AUG-1996.
PF  20-FEB-1996; J00374.
PR  20-FEB-1995; JP-054977.
PR  21-JUL-1995; JP-207508.
PA  (SNOW ) SNOW BRAND MILK PROD CO LTD.
PI  Goto M,  Higashio K,  Kobayashi F,  Mochizuki S,  Morinaga T;
PI  Nakagawa N, Shima N,  Tsuda E,  Ueda M,  Yano K,  Yasuda H;
DR  WPI; 96-402320/40.
DR  P-PSDB; R99938.
PT  DNA encoding osteoclastogenesis inhibitory factor protein - useful
PT  for bone resorption control, esp. treatment of osteoporosis
PS  Claim 48; Page 139-140; 183pp; Japanese.
CC  This sequence encodes a mutated version of the full length
CC  osteoclastogenesis inhibitory factor (OCIF) of the invention.  This
    sequence encodes OCIF-DCR3 in which amino acids 85-122 of the mature
    protein have been deleted.  The OCIF of the invention has a molecular
CC  weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under
CC  non-reducing conditions.  The protein is adsorbed onto cation-exchangers
CC  or heparin and its activity is lowered after 10 mins at 70 deg.C or 30
CC  mins at 56 deg.C, and is lost after 10 mins at 90 deg.C.  OCIF is useful
CC  in the control of bone resorption and therefore in the treatment and
CC  prevention of disorders of bone resorption, e.g. osteoporosis.
SQ  Sequence   1080 BP;    351 A;    259 C;    233 G;    237 T;
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  Query Match           50.1%;  Score 765;  DB 27;  Length 1080;
  Best Local Similarity 100.0%;  Pred. No. 0.00e+00;
  Matches   765;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db    316 agatgtccagatgggttcttctcaaatgagacgtcatctaaagcaccctgtagaaaacac 375
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Qy    475 AGATGTCCAGATGGGTTCTTCTCAAATGAGACGTCATCTAAAGCACCCTGTAGAAAACAC 534

Db    376 acaaattgcagtgtctttggtctcctgctaactcagaaaggaaatgcaacacacgacaac 435
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Qy    535 ACAAATTGCAGTGTCTTTGGTCTCCTGCTAACTCAGAAAGGAAATGCAACACACGACAAC 594

Db    436 atatgttccggaaacagtgaatcaactcaaaaatgtggaatagatgttaccctgtgtgag 495
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Qy    595 ATATGTTCCGGAAACAGTGAATCAACTCAAAAATGTGGAATAGATGTTACCCTGTGTGAG 654
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Db    496 gaggcattcttcaggtttgctgttcctacaaagtttacgcctaactggcttagtgtcttg 555
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Qy    655 GAGGCATTCTTCAGGTTTGCTGTTCCTACAAAGTTTACGCCTAACTGGCTTAGTGTCTTG 714

Db    556 gtagacaatttgcctggcaccaaagtaaacgcagagagtgtagagaggataaaacggcaa 615
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Qy    715 GTAGACAATTTGCCTGGCACCAAAGTAAACGCAGAGAGTGTAGAGAGGATAAAACGGCAA 774

Db    616 cacagctcacaagaacagactttccagctgctgaagttatggaaacatcaaaacaaagac 675
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Qy    775 CACAGCTCACAAGAACAGACTTTCCAGCTGCTGAAGTTATGGAAACATCAAAACAAAGAC 834

Db    676 caagatatagtcaagaagatcatccaagatattgacctctgtgaaaacagcgtgcagcgg 735
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Qy    835 CAAGATATAGTCAAGAAGATCATCCAAGATATTGACCTCTGTGAAAACAGCGTGCAGCGG 894

Db    736 cacattggacatgctaacctcaccttcgagcagcttcgtagcttgatggaaagcttaccg 795
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Qy    895 CACATTGGACATGCTAACCTCACCTTCGAGCAGCTTCGTAGCTTGATGGAAAGCTTACCG 954

Db    796 ggaaagaaagtgggagcagaagacattgaaaaaacaataaaggcatgcaaacccagtgac 855
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Qy    955 GGAAAGAAAGTGGGAGCAGAAGACATTGAAAAAACAATAAAGGCATGCAAACCCAGTGAC 1014

Db    856 cagatcctgaagctgctcagtttgtggcgaataaaaaatggcgaccaagacaccttgaag 915
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Qy   1015 CAGATCCTGAAGCTGCTCAGTTTGTGGCGAATAAAAAATGGCGACCAAGACACCTTGAAG 1074

Db    916 ggcctaatgcacgcactaaagcactcaaagacgtaccactttcccaaaactgtcactcag 975
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Qy   1075 GGCCTAATGCACGCACTAAAGCACTCAAAGACGTACCACTTTCCCAAAACTGTCACTCAG 1134

Db    976 agtctaaagaagaccatcaggttccttcacagcttcacaatgtacaaattgtatcagaag 1035
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Qy   1135 AGTCTAAAGAAGACCATCAGGTTCCTTCACAGCTTCACAATGTACAAATTGTATCAGAAG 1194

Db   1036 ttatttttagaaatgataggtaaccaggtccaatcagtaaaaata 1080
          ||||||||||||||||||||||||||||||||||||||||||||
Qy   1195 TTATTTTTAGAAATGATAGGTAACCAGGTCCAATCAGTAAAAATA 1239
```

Search completed: Thu Aug 21 10:07:25 1997
Job time : 360 secs.